Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Promoting Telehealth in Rural America	)	WC Docket No. 17-310

COMMENTS OF GENERAL COMMUNICATION, INC.

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I. INTRODUCTION AND SUMMARY.

General Communication, Inc. (together with its carrier subsidiaries, "GCI") responds to the Commission's Notice of Proposed Rulemaking regarding improvements to the Rural Health Care ("RHC") Program.[1] As the leading provider of broadband services in Alaska and a leader in the development of telemedicine, GCI has facilitated and experienced firsthand the "significant impact" that technology and telemedicine have on the healthcare needs of rural residents.[2] Since its inception, the RHC Program has revolutionized service delivery in rural Alaska and improved patient quality of life while dramatically reducing healthcare costs. Moreover, the RHC Program, along with E-rate, has helped to spur rural broadband deployment to sparsely populated and extremely rural communities, particularly with respect to middle-mile transport. However, GCI agrees that revisions to the RHC Program are necessary to fully realize its benefits. GCI encourages the Commission to reform the RHC Program by codifying the gift rules, clarifying the method of calculating the urban rate, updating the rural rate methodology to account for changes in technology and regulation since 1997, and addressing the budget cap and level of healthcare provider expenditures under the Telecommunications Program in a way that balances the need to allocate funds effectively with the need to ensure that broadband services are made available to healthcare providers in a fair and sustainable manner. The Commission must also take care that its reforms do not undermine the investment in rural broadband facilities that it otherwise seeks to encourage.

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1 *In the Matter of Promoting Telehealth in Rural America*, WC Docket No. 17-310, Notice of Proposed Rulemaking and Order, 83 Fed. Reg. 303 (2017) ("Notice").

2 *Id.* at 3 ¶ 3.

The Commission should revisit the twenty-year-old $400 million program cap. A cap that does not adequately meet the needs of the program contravenes both the plain text and overarching purpose of section 254(h)(1)(A), which effectively mandates the RHC Program design, as well as section 254(b)(5), which requires that support be specific, predictable, and sufficient. Most importantly, the Commission should reevaluate the cap to reflect the current bandwidth needs of, and purchase decisions made by, healthcare providers in rural areas. It should also establish a mechanism to self-adjust annually going forward, both for inflation and to accommodate the growing importance of telemedicine in rural healthcare. Although certain of the Commission's proposed commonsense steps, such as establishing consistent gift restrictions, are well-advised and would clearly foreclose abusive conduct, the existing program distribution mechanism is generally working as it should. The increase in healthcare providers' requests for funding is not generally the result of carriers nefariously raising their rates, but is instead due to a combination of the Healthcare Connect mechanism and, more generally, an increase in healthcare providers' need for and use of telecommunications services to provide healthcare in rural areas. In fact, in GCI's experience, per Mbps service rates charged to healthcare providers and supported by the Telecommunications Program have consistently decreased over time.

As part of its changes to the RHC Program, the Commission must revise the rural rate rules contained in section 54.607 to reflect its current regulatory regime for packet-based services. Consistent with its findings in the 2007 packet-service forbearance orders and its 2017 *BDS Order*, the Commission should now rely on the market—not regulation—to determine rates for rural healthcare providers. Reliance on publicly-available rates is generally not possible, given the detariffing of interexchange services and Ethernet services. In particular, the Commission should abandon the backstop of cost-based ratemaking. As the Commission

recognized in the *BDS Order*, regulatory ratemaking is likely to generate an erroneous rate, which, if too low, will stymie the development of rural broadband networks that the Commission otherwise seeks to encourage. Indeed, the regulatory uncertainty alone discourages investment.

In addition, targeting high-support healthcare providers for enhanced review is both discriminatory and at odds with section 254(h)(1)(A). The "benchmark" method would both impermissibly impose an external limitation on the calculation of rates and unfairly impact only "outlier" parties. Structuring the program in a way that reduces support for healthcare providers seeking the most of it—the healthcare providers serving the most rural areas—would undermine the entire purpose of the RHC Program. Any reductions to reduce cap overflow must be both equitable and consistent with the underlying statutory purpose.

The Commission must likewise keep this statutory purpose in mind when devising a scheme for prioritizing funding requests. The Commission's suggestions of prioritizing based on type of support, type of service, type of program, economic need, or healthcare professional shortages do not meet these statutory objectives. Its suggestion of prioritizing based on rurality or remoteness has potential but ultimately falls short. As such, the Commission should consider GCI's proposal, which strikes a balance between defraying costs and providing economic incentives. Under this proposal, healthcare providers in Highly Rural areas would receive funding priority over healthcare providers in non-Highly Rural areas. At the same time, to encourage fiscal discipline, the proposal would increase the minimum payments required of those Highly Rural healthcare providers. This two-pronged approach will both promote the Commission's goal of efficient program administration and keep the program consistent with the statute's objectives.

Finally, rural rates in Alaska are already both justified and market-disciplined. There is a competitive market for selling telecommunications services to healthcare providers in rural Alaska. Furthermore, competition is only continuing to increase, as Quintillion has launched its fiber-based service to northwest Alaska, and new advanced non-geostationary satellite constellations are on the horizon to deliver promising low latency broadband. Faced with these market realities, GCI has consistently reduced the per Mbps rates charged to healthcare providers in the RHC Program; the increase in total dollars requested for funding is a direct result of increased healthcare provider demand for bandwidth.

Overall, GCI supports Commission action updating the RHC Program to better reflect current telemedicine needs and market conditions. Many aspects of the program, having been set in 1997, are outdated. It is time to bring the program into the present in a way that ensures that the program remains true to its overarching goal: making broadband service available to rural healthcare providers and, therefore, making healthcare accessible to the residents of the nation's most rural areas.

II. THE RHC PROGRAM HAS BEEN EXTREMELY SUCCESSFUL IN ALASKA.

Alaska is geographically and demographically unique, presenting unparalleled challenges to the delivery and provision of quality healthcare. Covering 570,641 square miles, Alaska is by far the largest state in the Union—over twice as large as Texas and nearly four times the size of California.[3] But with an estimated population of only 737,080,[4] Alaska's population density is

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[3] State Area Measurements and Internal Point Coordinates, U.S. Census Bureau, available at https://www.census.gov/geo/reference/state-area.html.

[4] 2017 Population Estimates by Borough, Census Area, and Economic Region, Alaska Department of Labor and Workforce Development: Research and Analysis, available at http://live.laborstats.alaska.gov/pop/index.cfm ("Alaska 2017 Population Estimates").

the lowest in the nation and, at only approximately 1.3 people per square mile, is nearly seventy times lower than the national average.[5] Even its three largest communities remain small by national standards. The city of Anchorage has a population of 297,483. The city of Fairbanks has a population of only 31,905. And though the population of the Fairbanks North Star Borough is 97,738, portions of the borough are not accessible by road. The state capital of Juneau and its surrounding borough has only about 32,269 people. Only one other community, Ketchikan, is a Core-Based Statistical Area; the Ketchikan Gateway Borough has a population of 13,754.[6] Outside of these areas, Alaska's population is generally located in small regional centers that are surrounded by small villages.

Many rural communities are hundreds of miles from the nearest road and accessible only by airplane, boat, dogsled, or snow machine. (See Figure 1, below.) This is even the case within the same borough—the core urban area or cluster may not be connected by road with other communities in the borough, as is the case even within the Fairbanks Northstar Borough, let alone much more remote areas such as the Bethel or Nome Census Areas. Population centers in these off-road communities are tiny. Even more "sizable" regional hubs like Utqiaġvik (formerly known as Barrow) and Nome have populations of only about 4,474 and 3,691, respectively.[7] Approximately 293 Alaskan villages have fewer than 1,000 residents,

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[5] Resident Population Data: Population Density, U.S. Census 2010, available at https://www.census.gov/2010census/data/apportionment-dens-text.php.

[6] Alaska 2017 Population Estimates, *supra* note 4; Alaska Population Estimates by Borough, Census Area, City, and Census Designated Place (CDP), 2010 to 2017, available at http://live.laborstats.alaska.gov/pop/estimates/data/TotalPopulationPlace.xls ("Alaska Population Spreadsheet") (linked from the Alaska 2017 Population Estimates page). The city of Ketchikan itself has a population of only 8,125.

[7] Alaska Population Spreadsheet, *supra* note 6.

approximately 117 villages have fewer than 100 residents, and approximately 61 isolated villages have fewer than 50 residents.[8] In total, 34 percent of Alaskans—over 45 percent of whom are Alaska Natives—live in rural communities that are highly dispersed, not connected to any road system, and with ingress and egress limited to air and, depending on the season, waterways or temporary ice road transportation.[9] Moreover, populations in rural Alaska fluctuate seasonally. In rural communities with fish processing facilities, such as Dillingham, Dutch Harbor, King Salmon, and St. Paul, the population can increase dramatically during the summer fishing season, as fishing boats dock to load fuel and supplies and unload their catch and workers migrate for temporary work in the processing plants.

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[8] State of Alaska, Department of Commerce, Community, & Economic Development, Community Database Online, available at https://www.commerce.alaska.gov/dcra/DCRAExternal/ (returning population figures for Alaskan communities in response to custom data queries).

[9] Alaska: 2010, Population and Housing Unit Counts, U.S. Census 2010, at 1-2, available at https://www.census.gov/prod/cen2010/cph-2-3.pdf (noting that 34 percent of Alaskans lived in rural communities in 2010) ("Alaska Census 2010"); Stewart Ferguson, et al., The Impact of Telehealth in Alaska: An 8 Year Retrospective of the AFHCAN Project, at slide 3, available at http://www.slideshare.net/HINZ/impact-of-telehealth-in-alaska ("Impact of Telehealth in Alaska") (noting that 46 percent of Alaskans are Alaska Natives).

Figure 1: Map of Alaska's Year-Round Road System

As might be expected, the state faces a shortage of medical professionals, especially specialists and psychiatrists, to treat its population. Although Alaska stands 17th in the nation in its "doctors to residents" ratio, the situation is bleak for rural Alaska, with approximately 78 percent of all Alaskan doctors located in urban areas.[10] Professionals and patients alike must continually deal with geographic obstacles in order to provide or obtain critical medical care. Indeed, timely medical care is often an expensive, if not unattainable, airplane flight away: 75 percent of Alaskan communities cannot reach a hospital by road.[11] According to the U.S. Health

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[10] Alaska Physician Workforce in 2014, WWAMI Center for Health Workforce Studies, at 3, available at http://depts.washington.edu/fammed/chws/wp-content/uploads/sites/5/2015/12/Alaska_Phys_Workforce_2014_Skillman.pdf.

[11] Impact of Telehealth in Alaska, *supra* note 9, at slide 6; About Alaska, UAA Alaska Center for Rural Health and Health Workforce, available at

Resources and Services Administration, approximately 91 percent of the state's residents are medically underserved.[12] For the majority of Alaska's residents, telemedicine is not an add-on service; telemedicine is the only way to provision healthcare and is the mainstay of healthcare providers throughout the state.

Confronted with these challenges, Alaska has led the way in developing innovative platforms and networks to anchor the delivery of healthcare to remote Alaska. The state has built a network of 550 Community Health Aides/Practitioners ("CHA/Ps") to serve over 170 rural Alaska villages.[13] These CHA/Ps use telemedicine in various ways, including to conduct triage; to determine when a patient can be treated locally and when a patient must be flown to Anchorage; to enable the exchange of documents, images, and records; to conduct patient education; to enable both non-real-time and real-time consultation; and to provide doctor-led treatments, including telepsychiatry.[14] To assist in connecting services with rural patients, the Alaska Federal Health Care Access Network ("AFHCAN"), a grant-driven initiative to provide telehealth and telemedicine services to Alaskan federal beneficiaries, launched the "AFHCAN Telemedicine Cart," an all-in-one portable station with video-conferencing capabilities and

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https://www.uaa.alaska.edu/academics/college-of-health/departments/ACRHHW/acrh-ahec/frontier/alaska.cshtml ("Alaska Center for Rural Health and Health Workforce").

[12] Medically Underserved Areas/Populations (MUA/P) by State and County: Alaska, Health Resources & Services Administration Data Warehouse, U.S. Department of Health & Human Services, available at https://datawarehouse.hrsa.gov/tools/hdwreports/Filters.aspx?id=52 (report filtered to show Alaska shows that only seven counties / boroughs / census areas are *not* medically underserved); 2017 Population Estimates by Borough, Census Area, and Economic Region, Alaska Department of Labor & Workforce Development, available at http://live.laborstats.alaska.gov/pop/ (showing estimated populations for those areas *not* medically underserved, as well as the population of Alaska as a whole).

[13] Alaska Community Health Aide Program, available at http://www.akchap.org/html/home-page.html.

[14] Impact of Telehealth in Alaska, *supra* note 9, at slides 10-11.

medical technological equipment that allows healthcare providers to capture patients' medical information and images and easily share that information with providers in other locations.[15] AFHCAN reports that, as of early 2014, it had served over 82,000 patients through its telehealth program, including nearly 23,000 patients in 2013 alone.[16]

The RHC Program has been an integral part of this innovative growth of telemedicine in the country's most remote state, supporting connections between villages and regional centers as well as between regional centers and Anchorage or the Lower 48. Unsurprisingly, given its unique geography and demographics, Alaska has been a top beneficiary of RHC program disbursements since 2002 and currently receives 25 percent of nationwide RHC Program funding.[17]

In 2018, telehealth is not just a well-established and integral part of healthcare in rural Alaska—for much of rural Alaska, it is virtually the *only* type of healthcare. Broadband allows healthcare providers in these areas to access a litany of valuable services their urban counterparts take for granted, such as the ability to receive laboratory results, conduct radiography consultations, record and transmit medical information for patients in intensive care units, and maintain electronic medical records, billing and coding services, and claims submissions.

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15 AFHCAN Telemedicine Cart, AFHCAN Telehealth Solutions, available at http://www.afhcan.org/cart.aspx.

16 Stewart Ferguson, AFHCAN Telehealth: Innovations in Health Care, at slide 7, available at http://knowledgecenter.csg.org/kc/system/files/Ferguson.pdf ("AFHCAN Telehealth Innovations").

17 Agnew, et al., Medicaid Redesign Telehealth Stakeholder Workgroup: Final Report, at 8 (Aug. 2017), available at http://dhss.alaska.gov/HealthyAlaska/Documents/redesign/MCDRE_Telehealth_Workgroup_Report.pdf.

Telehealth technology and services will continue to evolve and further improve healthcare delivery in these isolated areas, but they will require more bandwidth to do so. A prime example of this evolution is the Yukon-Kuskokwim Health Corporation ("YKHC"), which administers a comprehensive healthcare delivery system for nearly fifty rural communities in the Yukon Delta, a region roughly the size of New York located approximately 400 air-miles west of Anchorage.[18] YKHC's services include health promotion and disease prevention programs, dental services, behavioral health services (including psychiatric and substance abuse counseling and treatment), ophthalmological care, and environmental health services. In almost all cases, YKHC facilities provide the only healthcare service options available to the individuals who live in its service areas.

Prior to 2008, YKHC had basic asymmetric connectivity (1.5 Mbps download, 512 Kbps upload) in most of its villages, which it used for medical and administrative applications, VoIP, and Internet service. In mid-to-late 2008, YKHC began expanding its bandwidth to a symmetrical 3 Mbps for remote clinics and to 5 Mbps for larger subregional clinics, which allowed the use of one or two, respectively, high-definition, full-motion video suites for psychiatry, radiology, remote consultations, other telemedicine applications, and professional training. Today, YKHC serves 47 communities—43 served by TERRA and 4 served by satellite. YKHC has bandwidth of 80 Mbps at Bethel, the largest rural hub in Alaska. It also has bandwidth of 20 Mbps at one remote native clinic and up to 15 Mbps at multiple subregional clinics.

[18] Our Region, Yukon-Kuskokwim Health Corporation, available at https://www.ykhc.org/our-region.

The improvements in care resulting from enhanced video-conferencing and other high bandwidth applications are dramatic. For example, where X-ray film was previously sent to radiologists via mail—which meant a broken bone might take three to four days or longer to diagnose—electronic files now allow radiology services to read X-rays almost in real time. Expanded bandwidth has also accommodated system demands associated with dental and digital mammography systems.

Other success stories resulting from telehealth advances in Alaska abound, which is to be expected when telehealth is the only means of obtaining health services for much of the state's population. Seward, for example, is a town of approximately 3,000 on the south coast of Alaska, tucked among the mountains of the Chugach National Forest and Kenai Fjords National Park. Until recently, the only way for its residents to obtain psychiatric care was to make the long journey to Anchorage or wait for a monthly visit from an Anchorage-based psychiatrist. Now, however, the local healthcare provider SeaView uses a secure telehealth network to connect patients with remote psychiatrists. Some 45 patients take advantage of the service each week, receiving treatment for psychiatric ailments ranging from depression to schizophrenia. For the residents of Seward, telepsychiatric services are the only psychiatric services.

Telemedicine facilitates more urgent treatment as well. In December 2015, a critically-wounded gunshot patient in Savoonga was scheduled to be medevaced for emergency surgery. Savoonga, a village of under 800 people, sits on St. Lawrence Island in the Bering Strait—closer to Russia than to mainland Alaska. Freezing rain delayed the flight, and in desperation, the health aides on duty called an emergency doctor in Nome. The doctor video-conferenced with the aides and talked them through the process of inserting a chest tube, a surgical procedure that bought the patient the extra time needed before the medevac flight arrived. In remote villages

like Savoonga, health aides—not physicians—are the front line of health care. Their ability to communicate quickly and reliably with providers in other villages and cities often means the difference between life and death.[19]

Looking to the future, it is clear that, as healthcare providers continue expanding broadband-based health delivery, they will seek increased bandwidth to accommodate these enhanced services. Current video-conferencing technology provides a connection comparable to HD television, and improvements are in the works: the latest 4k technology will allow physicians on video-conferences to clearly see pupil dilation, sweating, and other physical symptoms not previously clearly viewable by video. Indeed, the Commission has recognized the importance of broadband in healthcare with its Connect2Health Task Force, which seeks to "explor[e] the intersection of broadband, advanced technology and health and further chart[ ] the broadband future of health care."[20] As part of this initiative, the Task Force has launched its Mapping Broadband Health in America project, which provides visualizations of broadband and health data throughout the country for the purpose of "enabl[ing] data-driven decision making" in broadband and healthcare policy.[21] In short, rural healthcare providers' access to telecommunications services, and the RHC Program that makes that access possible, has revolutionized healthcare in rural Alaska. In these areas, healthcare and telehealth have become virtually synonymous.

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[19] Jill Burke, *The Team That Holds the Line Between Life and Death in Savoonga*, Anchorage Daily News, Dec. 23, 2015, at https://www.adn.com/voices/article/jill-burke-how-seven-person-team-surrounded-bering-sea-holds-line-between-life-and/2015/12/24/.

[20] Connect2HealthFCC, Federal Communications Commission, available at https://www.fcc.gov/about-fcc/fcc-initiatives/connect2healthfcc.

[21] *Id.*

In addition to enhanced telehealth services, healthcare providers must also accommodate their ongoing, mandated use of electronic health records ("EHRs"). EHRs are mandatory as of 2015, and healthcare providers who fail to implement and maintain them are penalized with reductions to their Medicaid and Medicare funding.[22] Because all EHRs must also comply with the stringent privacy requirements of the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"),[23] healthcare providers must invest in specialized, secure EHR software—as well as the bandwidth needed to operate it. In addition, HIPAA security requirements also affect the extent to which HCPs are willing to use best-efforts and shared services. Between advances in telehealth technology allowing healthcare providers to better serve their communities and federal laws requiring them to maintain expensive electronic records, healthcare providers' demand for broadband services will continue to increase.

Most of rural Alaska previously depended on C-band or Ku-band geostationary satellite technology to transport traffic across the middle mile. While still needed in the most remote locations, providing additional advanced telehealth services over satellite remains challenging because current satellite service is expensive, with limited throughput capacity and inherent latency and, thus, is not ideal for high capacity, latency-sensitive telehealth services such as real-time, high definition, full motion video teleconferencing. Moreover, satellite service's limited throughput capacity means that such service does not provide a cost-effective method to keep up with ever-increasing bandwidth needs for rural healthcare providers, let alone those needs in

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[22] Medicare and Medicaid Health Information Technology: Title IV of the American Recovery and Reinvestment Act, Centers for Medicare & Medicaid Services, June 16, 2009, at https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2009-Fact-sheets-items/2009-06-16.html.

[23] Summary of the HIPAA Security Rule, U.S. Department of Health & Human Services: Health Information Privacy, July 26, 2013, at https://www.hhs.gov/hipaa/for-professionals/security/laws-regulations/index.html.

addition to E-rate services and mass-market broadband Internet access services. Satellite today cannot keep up with such increases in demand. In addition, satellites themselves need to be replaced approximately every 15 years, at a cost of hundreds of millions of dollars per satellite—and, in Alaska, there is a constriction of satellite coverage as current satellites go out of service and are not replaced. Thus, while future advanced non-geostationary satellites hold promise, terrestrial fiber and/or microwave backbone facilities connecting rural Alaskan communities with the Anchorage/Fairbanks corridor and the Lower 48 are critical to provisioning healthcare in Alaska.

Capturing economies of scale has been, and will continue to be, critical to delivering broadband to rural Alaska. Due to the vast distances, severe climate, difficult terrain, and widely dispersed population, the largest impediment to providing broadband to all of Alaska, particularly rural Alaska, has been the lack of sufficient middle-mile connectivity.[24]

Recognizing the need for additional infrastructure and middle-mile connectivity to meet growing demand in rural Alaska, in 2008, GCI acquired United Utilities and its western Alaska microwave network. From that network, GCI built and deployed its TERRA network, which was western Alaska's *first* terrestrial middle-mile network connected back to Anchorage and the Internet, serving 65 communities in the Bristol Bay and Yukon-Kuskokwim Delta. TERRA now serves 84 remote Alaska communities.[25] Other carriers in Alaska are also investing in middle-

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[24] *See generally* Comments of General Communication, Inc. – NBP Public Notice #11, GN Docket Nos. 09-47, 09-51, & 09-137, at 1-2 (filed Nov. 4, 2009).

[25] TERRA was initially funded in part through a Broadband Initiatives Program ("BIP") grant of $44 million and a BIP loan of $44 million (as well as a $6 million from the State of Alaska). GCI actually completed TERRA under budget, requiring only $40,839,745 of its awarded loan amount and $40,676,715 of its awarded BIP grant. In addition, GCI incurred more than $178 million in risk for the capital necessary to build TERRA.

mile facilities, improving connectivity to remote areas and, in some cases, providing direct competition to GCI's middle-mile offerings.[26] GCI has invested heavily not only in extending the network, but also in closing the microwave ring, which practically doubled the usable capacity and created much needed protection in the event of a disruption of a link. Notably, a new competitor, Quintillion Networks, recently entered the market providing competitive fiber-based, high-speed service to three regional centers in northwest Alaska, including Utqiaġvik (formerly known as Barrow), Kotzebue, and Nome.[27]

Alaska shows that investment in broadband infrastructure to support telehealth is a sound public investment. Indeed, the benefits of the RHC Program extend far beyond the improvement of healthcare itself. Through USF support, rural healthcare facilities not only bring much-needed medical services to rural areas, but also help to justify the terrestrial broadband infrastructure investment that benefits the regions' non-medical institutions, government, public safety, rural residents, and small businesses. In addition to improved healthcare, the RHC Program-supported expansion of broadband communications options to residents in Alaska's vast wilderness areas enhances regional economic development, economic opportunities, and education.

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[26] *See* Letter from Chris Nierman, Senior Counsel, Federal Affairs, General Communication, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 2-4 (filed June 3, 2015).

[27] Cecilia Kang, *Melting Arctic Ice Makes High-Speed Internet a Reality in a Remote Town*, N.Y. Times, Dec. 2, 2017, https://www.nytimes.com/2017/12/02/technology/from-the-arctics-melting-ice-an-unexpected-digital-hub.html. *See also* Sidney Sullivan, *New High Speed Internet Infrastructure Launches Services in Arctic Alaska*, KTUU, Dec. 1, 2017, http://www.ktuu.com/content/news/New-high-speed-internet-infrastructure-launches-services-in-Arctic-Alaska-461318853.html.

III. THE COMMISSION SHOULD REVISIT THE CURRENT $400 MILLION RHC CAP.

A. The Current Shortfall is Small, But Should Be Adjusted to Ensure Statutory Obligations Are Met.

As the Commission observes, the current RHC Program cap of $400 million has remained static since the Telecom Program was first established in 1997.[28] In FY 2016, program demand exceeded the cap by approximately $20 million, and demand is expected to continue to rise.[29] Accordingly, the Notice appropriately explores the ways by which the Commission can increase the cap for FY 2017 and beyond.

The Commission must ensure that its implementation of the RHC Program adheres to the statutory mandates found in section 254(h)(1)(A). Section 254(h)(1)(A) entitles service providers to the full difference between the rural rates they typically charge and the rates actually paid under the program—equivalent to urban rates—by rural healthcare providers.[30] In addition, the Telecommunications Act expressly contemplates the RHC Telecom Program as a way to ensure that healthcare providers in the nation's most rural areas have affordable access to telecommunications services at a level on par with their urban counterparts.[31]

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[28] *In the Matter of Federal-State Joint Board of Universal Service*, Report & Order, CC Docket No. 96-45, 12 FCC Rcd. 8776, 9141, at ¶ 704 (1997) ("RHC Program Cap Analysis").

[29] Notice, *supra* note 1, at 5 ¶ 8.

[30] 47 U.S.C. § 254(h)(1)(A). The statute entitles a service provider to have "the difference between the lower, urban rate that [it] charges eligible health care providers . . . and the higher, rural rates that would normally be charged to these customers" treated as a credit against its universal service obligation. *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Final Rule, 64 Fed. Reg. 62,120, 62,120 ¶ 1, 1999 WL 1032464 (1999) ("ETC Rule").

[31] 47 U.S.C. § 254(h)(1)(A).

The program—including any modifications—must therefore be implemented in a manner consistent with these statutory mandates. Although the current budget shortfall of $20 million is relatively small, a shortfall of any kind means that the program is likely to be unable to meet the statutory requirement.[32] Thus, the Commission must adjust the cap.

The statute also requires the Commission to ensure that support offered under the program is specific, predictable, and sufficient.[33] As it is currently structured, the RHC Program fails to meet these standards. In light of increased demand as a result of changes in technology and requirements for telehealth services, the application of a cap that does not meet demand necessarily means that program support has been insufficient and, therefore, does not meet the statutory requirements. In further contravention of the statute, the cap and resulting budget shortfall have rendered program support both unpredictable, as applicants cannot be certain whether their needs in a given year will be met, and unstable, as applicants do not know at what amount requests will be funded—even after services have been delivered.

The Commission's current solution to the budget shortfall—pro rata funding reductions—likewise fails to meet the statutory requirements of 254(h)(1)(A) and 254(b)(5). In FY 2016, all qualifying requests were funded at only 92.5 percent, leaving healthcare providers

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[32] In the event an RHC Program discount would cause the provider to exceed its contribution, the statute entitles the provider to reimbursement of the excess. *Id.* at 62,122 ¶ 8 (noting that, under those circumstances, the refund "would satisfy the carrier's [statutory] entitlement"); *see also* 47 C.F.R. § 54.679(c) (rule enacted to meet this statutory entitlement by providing that if "the total amount of support owed [to a service provider] exceeds its universal service obligation . . . the service provider shall receive a direct reimbursement in the amount of the difference"). Thus, in order to ensure compliance with section 254(h)(1)(A), the RHC Program must be capable of reimbursing all service providers for the full amount of the discounts offered to rural healthcare providers.

[33] 47 U.S.C. § 254(b)(5) ("There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service."); *see also* RHC Program Cap Analysis, *supra* note 28, at 9141 ¶ 704.

to make up the 7.5 percent difference.[34] Even though the Commission allowed service providers in Alaska to waive payment of the shortfall amount, this proration created substantial uncertainty among healthcare providers with respect to the amount that they themselves would have to pay for critical telecommunications services, especially as they looked ahead to FY 2017.[35] Applying a similar proration in FY 2017 and beyond will only exacerbate this issue and result in long-term instability. To the extent that these reductions continue to be borne by service providers, they undercut the healthcare provider purchasing discipline that the Commission would also like to ensure; and to the extent that healthcare providers will bear these costs, they will need to scramble to secure additional funding or reduce their telehealth service offerings. This resulting uncertainty and instability has been and will continue to be especially problematic in remote Alaska, where healthcare providers are funded through the federal Indian Health Service, a program operated by the U.S. Department of Health and Human Services, which provides little opportunity to address significant mid-year cost changes.

B. The Commission Should Fully Reevaluate the Cap and Establish a Going-Forward Mechanism to Adjust for Inflation.

The Commission states that the cap, if adjusted for inflation since its adoption in 1997, would be $571 million in FY 2017.[36] GCI believes that the cap should have been, and should now be, adjusted to account for inflation. At this point, however, an adjustment for inflation alone is insufficient because of changes in the underlying bandwidth needs of healthcare providers.

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[34] Notice, *supra* note 1, at 3 ¶ 4 n. 11.

[35] *In the Matter of Rural Health Care Support Mechanism*, Order, WC Docket No. 02-60, 32 FCC Rcd. 5463, 5464-65 ¶¶ 5, 8 (2017) ("Alaska Waiver").

[36] Notice, *supra* note 1, at 9 ¶ 16.

1. The Current Cap is Based on Out-of-Date Assumptions That Should be Updated to Reflect Current Telecom Requirements and Purchase Decisions in Telemedicine.

The original RHC Program annual cap of $400 million, set in 1997, was premised on a series of assumptions that are now obsolete. For example, the Commission estimated that the program would annually support approximately 12,000 healthcare providers serving rural areas.[37] In FY 2016, the RHC Program granted approximately 5,700 applications.[38] In addition, the Commission estimated that each eligible rural healthcare provider would request the best service available at the time: a TDM-based T-1 that provided a 1.544 Mbps connection.[39] Developments in both broadband and telehealth technology over the last two decades have long ago outrun that assumption.

When it adopted the cap in 1997, the Commission acknowledged that the cap might require reevaluation down the road.[40] In 2002 and 2003, the Commission reevaluated certain aspects of the RHC Program funding mechanism in light of advancements to telecommunications services technology, namely, the widespread advent of the Internet. Because the cap was more than sufficient to meet demand at the time, however, the Commission did not consider revisiting or modifying it.[41] Similarly, in 2006, the Commission noted that

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37 RHC Program Cap Analysis, *supra* note 28, at 9141 ¶ 706.

38 2016 Annual Report, Universal Service Administrative Company, at 21 (2016), available at http://www.usac.org/_res/documents/about/pdf/annual-reports/usac-annual-report-interactive-2016.pdf (showing that the RHC Program granted 5,718 applications in FY 2016).

39 RHC Program Cap Analysis, *supra* note 28, at 9142 ¶ 707.

40 *Id.* at 9144 ¶ 713.

41 *See In the Matter of Rural Health Care Support Mechanism*, Notice of Proposed Rulemaking, WC Docket No. 02-60, 17 FCC Rcd. 7806, 7809 ¶ 8 (2002); *In the Matter of Rural Health Care Support Mechanism*, WC Docket No. 02-60, Report and Order, Order on

demand for program funding had yet to come close to the cap.[42] In 2012, commenters expressed concern about the impact on rural healthcare providers should the cap be exceeded as a result of extending funding to non-rural healthcare providers through consortia. In responding to these concerns, the Commission did not consider revisiting the then-fifteen-year-old cap, instead stating that it did not anticipate program demand to exceed the cap for the "foreseeable future."[43] Thus, when the cap was exceeded for the first time in FY 2016, it was still based on assumptions that were two decades old.

Accordingly, the Commission's proposal to adjust the cap to account for inflation does not address the problem with the underlying assumptions of the cap, and merely updating the cap to account for twenty years' worth of inflation is an incomplete and insufficient solution to this problem. Moreover, although some waste may have contributed to the program's exceeding its cap, the magnitude of waste does not appear substantial. For example, in its Notice of Apparent Liability ("NAL") issued to Network Services Solutions, the Commission alleged rampant violations of competitive bidding and rural rate determination rules, including forged documents, with overpayments totaling $3.5 million—for a company that had received $38 million in RHC support over a ten-year period.[44] In addition, in its recent DataConnex NAL, the Commission

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Reconsideration, and Further Notice of Proposed Rulemaking, 18 FCC Rcd 24546, 24550-51 ¶¶ 8-9 (2003).

42 *In the Matter of Rural Health Care Support Mechanism*, Order, WC Docket No. 02-60, 21 FCC Rcd. 11,111, 11,113 ¶ 8 (2006).

43 *In the Matter of Rural Health Care Support Mechanism*, Report and Order, WC Docket No. 02-60, 27 FCC Rcd. 16,678, 16,710, 16,795 ¶¶ 67, 275 (2012).

44 *In the Matter of Network Services Solutions*, Notice of Apparent Liability for Forfeiture and Order, 31 FCC Rcd. 12,238, 12,244, 12,284 ¶¶ 16, 144 (2016) ("Network Services Solutions NAL").

alleged $2.1 million in improper payments for 2016.[45] In both cases, at least some of these support funds would likely have had to be expended had the healthcare providers received support through a properly-conducted competitive bidding process with rates and support amounts untainted by any alleged misconduct. These NALs thus cannot justify a speculative and substantial decrease in estimated demand for RHC support or a reduction in the budget.

A static, twenty-year cap is ill-suited to an environment in which telecommunications and telehealth technologies are continuously evolving and advancing. In light of the dynamic nature of this technology, comparing costs to the existing cap is not an apples-to-apples comparison. Therefore, in order to establish an appropriate cap, the Commission must consider the actual number of eligible healthcare providers served by the program, as well as ongoing advances in medical services, the communications services needed to deliver these medical services, and the market-driven prices of these communications services.

2. The Cap Should Self-Adjust Annually for Inflation Going Forward.

In addition to reevaluating the cap itself, the Commission should establish a mechanism to adjust and maintain the cap at sufficient levels. It seeks comment on whether to adopt a mechanism for automatically increasing the cap to account for inflation.[46] Although, as explained above, adjusting the original cap for inflation should not be the end of evaluating the appropriate cap, the Commission should nevertheless begin to adjust for inflation going forward.

The Commission can accomplish this by providing for an annual automatic adjustment to the cap based on a measure of the economy-wide rate of inflation. For instance, the Commission can use a national price index such as the U.S. Department of Commerce's Bureau of Economic

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[45] *In the Matter of DataConnex, LLC*, Notice of Apparent Liability for Forfeiture and Order, FCC No. 18-9 (rel. Jan. 30, 2018).

[46] Notice, *supra* note 1, at 10 ¶ 18.

Analysis's Gross Domestic Product-Price Index (GDP-PI). The additional burden on the Commission to implement such an adjustment will be minimal, especially given that it will also be using the GDP-PI to adjust for inflation in the context of Business Data Services.[47]

Inflation is not the only factor to be considered, however. Any such mechanism should also allow for reasonable increases to the cap to accommodate the growing prevalence of telemedicine and the attendant increase in healthcare provider bandwidth needs. Absent these allowances, the newly-revisited cap will become outdated almost immediately, and this problem will only be exacerbated with every subsequent year.

IV. WITH A MODEST CAP INCREASE, THE COMMISSION CAN MAINTAIN THE EXISTING DISTRIBUTION MECHANISM FOR THE TELECOM PROGRAM, WHICH IS CURRENTLY WORKING AND FULFILLING STATUTORY OBLIGATIONS.

The existing Telecom Program distribution mechanism is working in Alaska. Healthcare providers in rural areas generally have access to telecommunications services at prices that are reasonably comparable to those charged for similar services in Anchorage, the only city in Alaska with a population over 50,000.[48] That demand for program funding has increased in recent years is not necessarily indicative of a problem with the current system. Instead, the increases in demand result primarily from advances in telecommunications and telemedicine technology, as well as the bandwidth demands arising from data privacy, security, and transfer. That said, any problems that do exist can and should be identified as part of a fulsome reassessment of the cap, as explained above in Section III.

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47 *In the Matter of Business Data Services in an Internet Protocol Environment, et al.*, Report and Order, WC Docket No. 16-143, 32 FCC Rcd. 3459, 3557 ¶ 237 (2017) ("BDS Order").

48 Alaska Census 2010, *supra* note 9, at 6.

In an effort to control costs for these telecommunications services, the Commission proposes to establish a "benchmark" that would allow it to identify "outlier" funding requests. It then proposes to either cap support at the benchmark—thus denying those "outlier" applicants their requested funding outright—or subject such applicants to an "enhanced review," with the goal of determining whether "the rural rate is improperly high" or "the urban rate is improperly low."[49]

Such a proposal is inconsistent with the Commission's ten-year-old reliance on market pricing to determine Ethernet rates—which it recently affirmed and expanded in its *BDS Order*—and discriminates against healthcare providers and carriers serving the most remote areas, such as those found in rural Alaska. Perhaps even more to the point, this proposal fails to achieve the Commission's goals and statutory obligations. Focusing on only the highest-cost services is not only contrary to the statute, but also creates a loophole by which nefarious actors may circumvent detection by focusing their efforts on providers outside of the defined "outliers." Moreover, this focus on cost undermines the importance of the services for which funding is most needed, and targeting high-cost services unfairly creates burdens for healthcare providers in the country's most remote areas.

A. The Existing Distribution Mechanism is Generally Working and Has Allowed Healthcare Providers in Remote Alaska to Have Access to "Rates That Are Reasonably Comparable to Rates Charged for Similar Services In Urban Areas In [Alaska]."[50]

Citing the Network Services Solutions NAL, the Commission suggests that recent increases in requests for funding may point to waste, fraud, and abuse within the RHC

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[49] Notice, *supra* note 1, at 17-21 ¶¶ 42-59.

[50] 47 U.S.C. § 254(h)(1)(A).

Program.[51] But as discussed above, that NAL—as egregious as the alleged conduct was—does not support such a conclusion.[52] Existing rules and precedent already prohibit the conduct that Network Services Solutions allegedly engaged in, including providing gifts to beneficiaries, entering into contracts before the 28-day competitive bidding period had expired, fabricating bid matrices, and forging and inflating invoices. Moreover, under the current rules, healthcare providers and service providers participating in the Telecom Program are subject to random information requests and audits. For instance, to ensure the integrity of the program, USAC performs beneficiary and contributor audits and administers a payment quality assurance program. This process is sufficient to detect any waste or fraud and to ensure that funding requests are accurate. Therefore, while GCI supports the Commission's proposed commonsense steps to strengthen the current rules, such as establishing consistent gift restrictions and harmonizing invoicing deadlines across the program,[53] as well as increasing the minimum healthcare provider share in the Telecommunications Program, when it comes to the distribution of funds, GCI believes that the rules currently in place already serve as adequate protection.

The Commission observes that the bulk of Telecom Program support is received by a small number of high-discount health providers. In FY 2016, for example, five percent of participating healthcare providers received 52 percent of the funding. In particular, the Commission notes that almost a third of RHC Program funding is disbursed to healthcare providers and service providers in Alaska. That Alaska receives a large portion of disbursements

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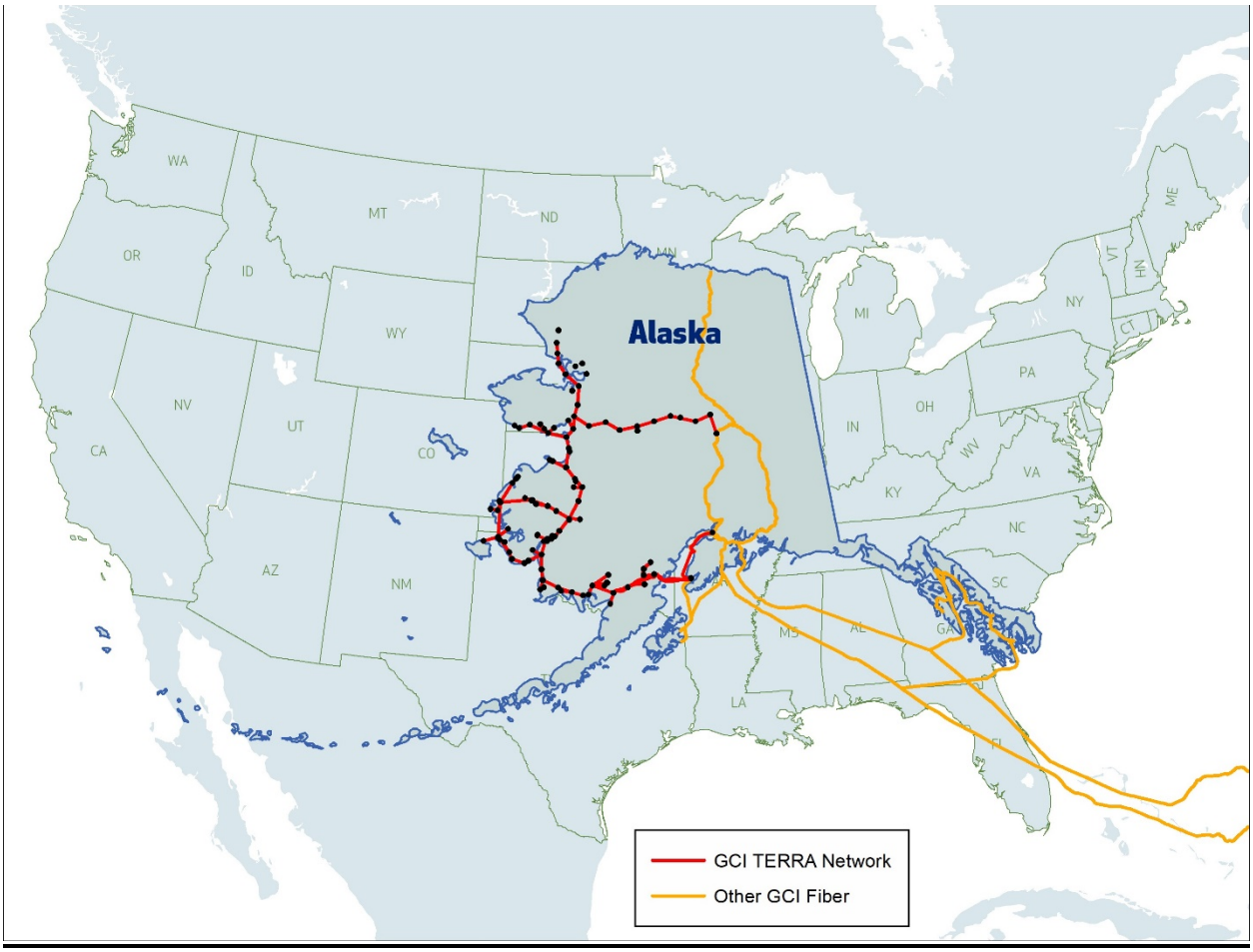
[51] Notice, *supra* note 1, at 3-4 ¶ 4.

[52] *See supra* Section III.B.i.

[53] *See* Notice, *supra* note 1, at 29-31 ¶¶ 89-95.

is not surprising given the size of the state relative to the rest of the country. (See Figure 2, below.)

Figure 2: Map Showing Alaska's Relative Size



The Commission further states that the average discount rate in Alaska is 98 percent, with some healthcare providers eligible for a discount rate of 99 percent, compared to a Lower-48 average discount rate of 91 percent. These observations are accompanied by graphs illustrating that, once the discount rate reaches between 92 and 94 percent, service providers' monthly prices skyrocket above healthcare providers' monthly costs.[54]

[54] *Id.* at 7-9 ¶¶ 10-13.

The implication is that service providers with the highest rates are taking advantage of the RHC Program by driving up their monthly prices in an effort to squeeze money out of the fund. This is both inaccurate and unfair. It is certainly true that the original $400 million cap is no longer sufficient because healthcare providers' demands for funding have increased, including through the creation of the Healthcare Connect mechanism, which was not part of the original basis for the cap but which has added significantly to the demand. These increased demands for funding, however, are not due to carriers nefariously increasing their rates. On the contrary, at least for GCI and the healthcare providers it serves, per Mbps service rates have consistently *decreased* over time.[55] In fact, healthcare providers' total charges for telecommunications services and, thus, their funding demands, have risen over time because they need higher bandwidth and more robust telecommunications services in order to provide healthcare in remote areas. The services healthcare providers currently receive, thanks to the program fund and their own out-of-pocket contributions, are vastly superior to the services of the past.[56]

As for steps the Commission can take to strengthen the current rules, it should codify the gift rules in a similar manner as under the E-rate program. GCI has applied those gift rules to the RHC Program ever since they were adopted for E-rate.

Furthermore, the Commission should harmonize invoice deadlines across the program. In particular, the Commission should adopt a deadline for filing the Telecom Program Form 467. Under the HCF Program, healthcare providers must file the equivalent Form 462 within six months after the funding commitment end date, but there is no similar requirement under the Telecom Program. But even six months is an unnecessary long time period within which to

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[55] *See infra* Section VI.B.

[56] *See id.* for a GCI-specific analysis.

notify the Commission that the service provider has begun providing the services for which the healthcare provider is seeking to receive the benefit of reduced rates through the rural healthcare universal service support mechanism. A 90-day period following the end of the funding year should be sufficient time to provide such notification.

B. The Commission Must Revise the Rural Rate Rules in 54.607 to Reflect Its Current Regulatory Regime for Packet-Based Services.

The Commission's rules for determining the rural rate used in determining support, codified in 47 C.F.R. 54.607, were promulgated in 1997. At that time, the Commission was just in the process of detariffing long distance rates,[57] and packet-based Ethernet services did not exist for commercial service.[58] As discussed above, the Commission assumed that healthcare providers would be purchasing TDM-based T-1 services, all of which were offered by ILECs under Section 203 tariffs subject to price regulation. The Commission's regulatory regime as applied to packet-based services, particularly Ethernet, has changed substantially in the past twenty years, but Section 54.607 has not kept pace. The Commission now relies on the market to govern Ethernet rates, in stark contrast to the regulatory regime of 1997. The rural healthcare rules should do the same, as there is no justifiable reason for reaching a different conclusion with respect to market competition for the provision of Ethernet.

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[57] *In the Matter of Policy and Rules Concerning the Interstate, Interexchange Marketplace*, Second Report & Order, CC Docket No. 96-61, 11 FCC Rcd. 20,730 (1996); Second Order on Reconsideration, 14 FCC Rcd 6004 (1999) ("Interstate Interexchange Marketplace Order") (following a stay and remand of the first decision by the DC Circuit).

[58] Jim Duffy, *The History of Metro Ethernet*, NetworkWorld, June 22, 2011, https://www.networkworld.com/article/2178567/lan-wan/the-history-of-metro-ethernet.html.

1. Consistent with Its Regulatory Regime for Ethernet Services, the Commission Should Rely on the Market to Set Reasonable Rates for Rural Healthcare Providers.

The Commission has forborne from rate and tariff regulation of interexchange services since 1999, and of most packet-based services since 2007—and it recently reconfirmed and extended the rate and tariff deregulation of packet-based to all local exchange carriers serving "price cap" areas.[59] With its *AT&T Forbearance Order* in 2007, the Commission analyzed Ethernet as a national market, and found that even enterprise customers with "more regional or localized operations" "are able to solicit telecommunications services from a range of potential providers."[60] Today, no packet-based business data services are subject to rate or tariffing regulation.[61] Indeed, in the vast majority of the country, even DS-1 and DS-3 special access services are being mandatorily detariffed.[62]

The Commission now relies on the market, not regulation, to determine rates for packet-based services. As the Commission discussed in its *BDS Order,* "We find that packet-based services are best not subjected to tariffing and price cap regulation, even in the absence of a nearby competitor."[63] The Commission further found that "even if the record demonstrated insufficiently robust competition, proposals to apply price cap regulation to packet-based services were complex and not easily administrable and did not reflect the fact that costs to serve

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[59] BDS Order, *supra* note 47, at 3464, 3499 ¶¶ 7 n. 24, 87.

[60] *In the Matter of Qwest Petition for Forbearance Under 47 U.S.C. § 160(C) From Title II ND Computer Inquiry Rules With Respect To Broadband Services*, Mem. Op. & Order, WC Docket No. 06-125, 23 FCC Rcd. 12,260, 12,272 ¶¶ 21, 24 (2008).

[61] Even for TDM services, no TDM services greater than a DS-3 are subject to rate or tariffing regulation. *Id.* at 12,273 ¶ 23.

[62] 47 C.F.R. §§ 69.201 (Price cap ILECs), 69.203 (CLECs).

[63] BDS Order, *supra* note 47, at 3500 ¶ 88.

individual customers vary."[64] Not only are Ethernet rates not tariffed, they are rarely even publicly available—except for guidebooks that some providers publish with "top-of-the card" rates.

Rather than ignoring the *BDS Order* and the Commission's deregulation of packet-based services, the Commission should revise Section 54.607 to reflect its greater reliance on market-based pricing, while also ensuring that carriers are not offering healthcare providers higher rates than they would offer a similarly situated commercial customer. And, as discussed in section 3, below, it should also abandon any reliance on cost-based price setting, which is an impossible task when trying to determine the rate for a single service for a single customer over a multiproduct network, and which has the potential for significantly impeding the deployment of advanced high capacity rural broadband networks.

2. For Additional Protection, the Commission Could Retain Rural Rate Comparability with Per Mbps Rates Offered to Commercial Customers.

The rules for determining the rural rate must recognize that the best protection against a healthcare provider being overcharged is competitive bidding in the open market. Where a healthcare provider conducts a proper competitive bidding process and selects the most cost-effective bid for eligible services, it will receive the best rate available.[65]

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64 *Id.* at 3499 ¶ 87.

65 In the RHC Program, "cost-effective" is defined as: "the method that costs the least after consideration of the features, quality of transmission, reliability, and other factors that the health care provider deems relevant to choosing a method of providing the required health care services." 47 C.F.R. §§ 54.603(b)(4), 54.642(c). The Commission should not try to micromanage healthcare providers' decisions as to what services are necessary, as doing so can lead to service-debilitating errors. In one case in which GCI was involved, USAC asserted for a time that only a T-1 was necessary for video, rather than a 3 Mbps connection—at a time when the FCC's National Broadband Report had suggested much higher throughput rates for video applications. Although USAC ultimately relented, its

To the extent that the Commission seeks to ensure that providers are not creating special, higher rates for subsidized purchasers than for non-subsidized purchasers, it can do so by comparing the per Mbps rate charged to commercial customers for services of the same or comparable quality for the same or shorter terms and the same or lower volumes. By focusing on the per Mbps rate for the volume and term closest to, but below, what the rural healthcare provider is purchasing, rather than absolute rates, the Commission can adopt a check on rates without adopting a series of safe harbors that would create artificial delineations between Ethernet services, which can be configured flexibly to a variety of bandwidths.

The Commission should not attempt, through regulation, to estimate the price curve for volume and term if the rural healthcare provider is purchasing at higher volumes or longer terms than commercial customers. Estimating such a curve would be highly speculative, and there is no empirically or economically sound basis for determining that curve. Notably, the Commission does not regulate the relationship between lower bandwidth levels and higher bandwidth levels of Ethernet in the commercial marketplace. As the Commission found in its *BDS Order*, "Because our market analysis shows that such services are subject to competition, anchor or benchmark pricing is unnecessary and could in fact inhibit investment in this dynamic market by preventing providers from being able to obtain adequate returns on capital."[66] In addition, as is true here as well, the Commission found that benchmarking proposals would be "administratively complex and unlikely to reliably result in just and reasonable rates."[67]

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original position delayed processing of the request and required the expenditure of legal fees by the healthcare provider and GCI. Had USAC succeeded in maintaining its original position, the service would have been inadequate for the application.

66 BDS Order, *supra* note 47, at 3499 ¶ 87.

67 *Id.*

For the same reason, the Commission should not adopt ACS' suggestion to cap terrestrial transport rates at the level of satellite services.[68] ACS ignores the importance of service quality and reliability for services purchased by rural healthcare providers, especially where these services are used for real-time medical diagnosis and treatment. Even with respect to electronic health records, the systems available generally are not designed to accommodate the latency inherent in geostationary satellites. Satellite is not an appropriate comparison when low-latency, high-quality services are needed. Thus, the cap ACS proposes would be arbitrary and capricious.

Collecting data from all providers on all services offered, and making that information publicly available, as proposed in paragraph 64, does not improve the competitive bidding process. In fact, it may harm the functioning of the commercial services market, where services are frequently bid upon subject to non-disclosure agreements. As the Commission found with respect to tariffs, mandatory public disclosure, particularly with centralized data, can remove incentives for competitive price discounting, prevent consumers from seeking out or obtaining service arrangement specifically tailored to their costs, and facilitate tacit price coordination.[69]

Should the Commission seek to examine some publicly available data for Ethernet services, it could look to the E-rate pricing for comparable services collected by USAC. E-rate is subject to a lowest corresponding price rule,[70] and thus should provide an indicator of the reasonableness of a carrier's rate charged to a rural healthcare provider for a supported service.

To the extent publicly-available rates of other providers exist, the Commission could permit a provider to rely on such rates in the absence of any contracts with commercial entities

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[68] Notice, *supra* note 1, at 22 ¶ 65.

[69] Interstate Interexchange Marketplace Order, *supra* note 57, at 20,760-61 ¶ 53.

[70] *See* 47 C.F.R. § 54.504(c).

for services of the same quality and a shorter term or smaller volume. However, with mandatory detariffing of interexchange services, no tariffing of Ethernet services, and mandatory detariffing of special access services in most areas, it is unlikely that such publicly available rates will continue to exist.

3. The Commission Should Abandon Cost-Based Ratemaking.

Currently, Section 54.607 requires a carrier serving a supported rural healthcare provider to have the rural rate determined based on costs presented to the state commission (for intrastate services) or the Commission (for interstate services), in the absence of either commercial contracts or publicly available rates.[71] Consistent with its actions in the *BDS Order*, the Commission should abandon cost-based ratemaking and rely on the market when no other rural rate indicia are present.

In the first instance, cost-of-service ratemaking for a single service to a single customer on a multiproduct, multiparty network would be extremely difficult, as economics could suggest a broad range of permissible rates, with no economically-determined methodology for selecting rates within that range. GCI's TERRA network serves as a good example. The TERRA network has numerous uses beyond rural healthcare services. For example, it provides long-haul connections for commercial and governmental enterprises (sold on both a retail and wholesale basis to other carriers) needing connections in rural western Alaska; it transports mass-market broadband traffic sold on both a retail and wholesale basis; it provides long-haul transport mobile voice and data services; and it provides long-haul transport fixed voice services. Some of these services are dedicated, whereas others are contended or best efforts. In addition, some services are integrated with information services, such as Internet access. In light of the Commission's

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[71] *Id.* at § 54.607(b).

detariffing of interstate high-speed dedicated services, none of these services are subject to active rate regulation.[72] However, the costs of building and operating the TERRA network—including costs for towers, radios, fuel, fiber from Anchorage to Levelock, network monitoring, repair and maintenance, and upgrades—are common to all of these services. Few costs, other than last-mile connectivity between the TERRA network and a rural healthcare provider's premises, are dedicated specifically to providing services to rural healthcare providers.

This arrangement, through which multiple services share the burden of various costs, means that not only would the process of collecting all costs be highly burdensome, it would also not actually yield a rate. The costs provided would necessarily be unseparated. In order to derive a rate, these unseparated costs would need to be allocated among the different services provided over the network. As the Commission has long recognized, economics does not prescribe a specific method for allocating common costs among services provided over a shared network: "any cost allocation is correct provided that each type of call recovers at least its incremental costs, and no one service recovers more than its stand-alone cost."[73] "Beyond broad parameters outlined above for cost allocation, economic theory does not provide any basis to determine what precise portion of common costs a particular service . . . must bear."[74] As a result, the cost allocation process is inherently arbitrary.

In turn, the arbitrary way in which costs are allocated will drive the rates generated in a cost-of-service ratemaking. If a larger share of common costs is allocated to a specific service,

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[72] Interstate Interexchange Marketplace Order, *supra* note 57; *see also* BDS Order, *supra* note 47 (declining to reinstate tariffing for packet-based Ethernet services).

[73] *In the Matter of Implementation of Pay Tel. Reclassification & Comp. Provisions of Telecommunications Act of 1996*, Order on Remand & Notice of Proposed Rulemaking, CC Docket No. 96-128, 17 FCC Rcd. 3248, 3255-56 ¶ 18 (2002).

[74] *Id.*

then rates for that service will be higher; likewise, if a smaller share of common costs is allocated, rates will be lower. This method therefore creates a significant risk that a regulator will over- or under-price a given service. This risk is elevated even further if the regulator is setting the rate only for a subset of services for a subset of customers, as would be the case here.

In addition, in order to carry out a cost-of-service ratemaking, the regulator must determine an appropriate rate-of-return on capital. The market has its own view of the costs of building a highly risky network in difficult and sparsely-populated areas such as western Alaska, particularly in the face of both existing competitors and future competitive entry. In GCI's experience, the market requires higher and faster returns than regulators would prescribe.

In this context, the risk of regulatory error in the ratemaking process is extremely high. As the Commission observed in the *BDS Order*,

> [I]t is very difficult . . . for a regulator to estimate the efficient price level in a business with the following characteristics: high uncertainty due to frequent and often large unforeseen changes in both customer demand for services and network technologies that are hard to anticipate and hedge against in contracts with customers; a complex set of products and services, which are tailored to individual buyers, costs of provision that vary substantially across different customer-provider combinations, and large irreversible sunk cost investments that a provider is required to make before offering service.[75]

High capacity broadband networks in rural areas used to provide, *inter alia*, services to rural healthcare providers are necessarily characterized by large irreversible sunk costs that must be paid before offering service and deliver a varied set of services. Network technologies are continually evolving, including with the prospect of advanced non-geostationary satellite constellations. And customer demand, in this context, is subject to both unforeseen changes and the potential for shifts among current and emerging suppliers. The Commission trenchantly

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[75] BDS Order, *supra* note 47, at 3517-18 ¶ 127.

observed, "[I]n these circumstances, the efficient price level . . . is extremely difficult to determine, not least because it must reflect the option value of sinking network investments in a rapidly changing environment."[76]

The Commission's findings with respect to business data services generally are also true with respect to any attempt to determine rural healthcare prices for Ethernet services: "Even well-crafted regulations have unintended consequences, inhibiting competition, reducing investment, and end user benefits."[77] As the Commission further noted, "This is especially true in markets as highly dynamic and complex as those for BDS."[78] Given that the Ethernet services provided to rural healthcare providers are business data services, the same is true for rural healthcare support. If the regulator picks too high a rate, although the universal service fund may for a time pay more than it "should" under a hypothetical (and unattainable) perfect ratemaking, the higher rates will attract competitive entry—or at least competing bids—which will discipline rates over time. If the regulator picks too low a rate, however, entry into the market will be stymied forever. This was the Commission's fundamental, analytical judgment in its *BDS Order*, when it observed, "In general, regulation discourages entry wherever it enforces prices that do not allow firms full cost recovery or raises the costs of entry."[79]

To be clear: what section 54.607(b) would require in terms of seeking Commission approval of cost-based interstate rates charged to rural healthcare providers is a form of ex ante price regulation. In its *BDS Order*, the Commission stated that it would "apply ex ante rate

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[76] *Id.*

[77] *Id.* at 3517 ¶ 126.

[78] *Id.*

[79] *Id.* at 3517 ¶¶ 126.

regulation only where competition is expected to materially fail to ensure just and reasonable rates."[80] There is no basis from which to conclude that competition will materially fail simply because a carrier has not sold a particular service to a commercial customer in a given rural area. The Commission should therefore adhere to its policy preference, articulated in the *BDS Order,* to "prefer reliance on competition rather than regulation, wherever purchasers can realistically turn to a supplier beyond the incumbent."[81]

Accordingly, the Commission should remove cost-based rate determinations from the definition of the rural rate, and instead rely on the market to govern reasonable rates.

C. The Commission Must Not Adopt Changes to the Program That Are Discriminatory or At Odds with the Statute.

1. Targeting Healthcare Providers With High Support Levels for Enhanced Review is Discriminatory and At Odds With the Statute.

The Commission's "benchmark" proposal, by which healthcare providers whose funding requests exceed a certain amount will be asked to further justify the rural rate prior to funding disbursement, is an impermissible deviation from the obligations and objectives imposed by section 254(h)(1)(A).

First, this proposal impermissibly imposes an external limitation on the calculation of rates. The Commission proposes, as a first step to "enhanced review," to require carriers to "justify the underlying costs in the rural rate presented in the funding request."[82] Under this approach, the Commission suggests, "USAC would limit the acceptable rural rate . . . to those

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[80] *Id.* at 3499 ¶ 86.

[81] *Id.*

[82] Notice, *supra* note 1, at 19 ¶ 49.

specific costs plus a reasonable rate of return."[83] This limitation is contrary to the plain text of the statute, which expressly provides that carriers are "*entitled to* have an amount equal to the difference, if any, between the rates for services provided to health care providers for rural areas in a State and the rates for similar services provided to other customers in comparable rural areas in that State treated as a service obligation."[84] The statute allows carriers to receive credit for the difference between the *actual rates* paid by rural healthcare providers and the *actual rates* paid by other, non-healthcare rural customers.[85] This language does not allow USAC or any other external entity to artificially limit rates to an "acceptable" amount. Therefore, proposals that prevent carriers from receiving credit or reimbursement equal to the difference between their regular rural rates and the "reasonably comparable" urban rates paid by rural healthcare providers are impermissible under the statute.

Second, this proposal unfairly and impermissibly applies this artificial rate limitation only to certain parties: those with funding requests that have been deemed "outliers." The statute does not distinguish between healthcare providers or carriers with regard to geography or funding requests; instead, it simply requires that carriers provide service to eligible rural healthcare providers at certain rates. The Commission's proposal, in theory, may be aimed at healthcare providers and carriers in every state equally. In practice, however, it singles out healthcare providers and carriers in rural Alaska and other extremely high cost rural locations and unduly burdens them in a way not experienced by their counterparts in other states. The simple,

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83 *Id.*

84 47 U.S.C. § 254(h)(1)(A) (emphasis added).

85 The FCC has interpreted this statutory difference to be "the difference between the lower, urban rate that a carrier *charges eligible health care providers* . . . and the higher, rural rates that *would normally be charged to these customers*." ETC Rule, *supra* note 30, at 62,120-21 ¶ 1 (emphasis added). *See supra* note 30 and accompanying text.

inescapable fact is that Alaska is different: the task, and attendant cost, of providing adequate telecommunications services to the furthest corners of the forty-ninth state—with limited customer opportunities—exists on a level not experienced by any other state in the Union. Carriers providing telecommunications services to rural Alaska set their rates to account for costs and risks that are unique to the state. Likewise, healthcare providers in rural Alaska seek access to a multitude of sophisticated telemedicine services—and, in turn, the attendant broadband services—to overcome geographical and logistical challenges that don't exist in other states. Requiring only certain healthcare providers to jump through extra hoops in order to obtain the funding to which they are entitled is both an impermissible implementation of the statute and an affront to its underlying intent of providing affordable telecommunications services to all providers, regardless of geography.

Moreover, targeting "outlier" requests for enhanced review would create a situation ripe for exploitation. Any provider could easily avoid enhanced review simply by submitting a funding request below the benchmark. With rules requiring enhanced review only of "outlier" requests, and with USAC's resources accordingly dedicated to such review, a given funding request below the benchmark would be unlikely to spark examination. This would allow nefarious actors, with funding needs well below the benchmark, to nevertheless request funding as high as the benchmark without detection. Such an actor could easily make off with extra funds while USAC's attention is focused on "outliers."

Finally, providing communications services to the most remote areas of the country is the underlying objective of the statute and the mission of the RHC Program. Many of the most remote areas in the country are in Alaska, where provision of communications services is more of a challenge than anywhere else in the country. The "outlier" construct proposed by the

Commission would disproportionately impact remote Alaska by making it more difficult and more expensive for healthcare providers to get the connectivity they need to serve their populace.

Increasing the burden on healthcare providers in remote Alaska will in turn have a detrimental impact on investment decisions regarding infrastructure maintenance and development. The costs and risks assumed by service providers in building networks in Alaska, whether terrestrial fiber or satellite, are higher than anywhere else in the country. Suppressing the funding that service providers rely on to justify network build-out costs will deter service providers from making further investments in Alaska's telecommunications infrastructure, which will in turn diminish the quality and quantity of communications services available—not only for healthcare providers, but for other rural customers as well.[86] Ultimately, any proposal that disproportionately burdens Alaskan stakeholders will run counter to both the RHC Program's goal of providing healthcare providers with advanced communications services and the Commission's goal of promoting rural broadband infrastructure deployment.

2. Capping Funding Requests That Exceed the Benchmark As a Means to Control Costs Violates the Statute.

As an alternative to enhanced review for "outliers," the Commission proposes capping funding requests at the benchmark. Like its companion proposal, this suggestion is incompatible with section 254(h)(1)(A). The statute expressly requires service providers to provide telecommunications services to eligible healthcare providers, and it expressly provides that those service providers will receive credit for the difference between the rates paid by those healthcare

[86] Indeed, GCI has currently put one of its proposed fiber builds—to Unalaska, a highly remote town in the Aleutian Islands—on hold as a result of the uncertainty created by the present proceeding. The possibility that rural healthcare providers will not receive adequate funding to purchase services from GCI at appropriate rates is directly impeding a development that, if built, would be the product of a rational, economic decision that benefits both the market and the area's residents.

providers and the rates paid by other rural customers. Any proposal that would limit a provider's reimbursement to a "benchmark"—regardless of how that benchmark is calculated—violates this statutory mandate. By capping funding at the benchmark, the Commission would effectively be limiting service providers' rural rate, lowering it to the sum of the rate paid by the healthcare provider and the difference between that rate and the benchmark. This sort of external limitation is impermissible under the statute for the reasons described above.

In fact, as proposed, the system of grouping healthcare providers into purportedly "similar" groups, and then fully funding only the lowest 25th percentile, could turn the statute completely on its head. In the first instance, it will be difficult for the Commission to group providers into "similar" groups, and off-road Alaska is likely to be an outlier to any other group. Moreover, by only fully funding the lowest 25th percentile, the Commission would likely direct support to the healthcare providers in that group that are the lowest cost to serve, rather than the hardest—which was clearly the focus of a statute that addressed the urban-rural rate differential. As discussed in Section V, below, a prioritization regime favoring the most rural areas is a much more rational way to allocate limited support, and is much more consistent with the statute than artificial benchmarks.

D. Any Reductions to Address Cap Overflow Must Be Equitable and Consistent with the Purpose of Section 254(h)(1).

In the event that a hard cap limits support to reimburse carriers for service provided to rural healthcare providers, that cap needs to be implemented in a way consistent with the overall purpose of Section 254(h)(1) to increase affordability for the most rural healthcare providers. The current rules, which require a prorated reduction in funding, do not do that. Instead, they place the greatest burden for absorbing support reductions on providers in the highest cost areas, which will have the highest charges. In FY 2016, for example, all program recipients had their

requested funding reduced by 7.5 percent across the board, no matter how rural the healthcare provider. For particularly remote entities with high connectivity costs—who necessarily receive high levels of program support—this 7.5 percent reduction was significant, a fact the Commission acknowledged in 2017.[87] As a result of this reduction, Alaskan rural healthcare providers found themselves unexpectedly burdened by extreme increases in their costs. Service providers were allowed to voluntarily reduce their prices to lessen the burden on healthcare providers, and GCI did so, but this one-time exception is not a sustainable solution to a recurring problem. Given the amounts of money at stake under this proration scheme—over a million dollars for some providers and hundreds of thousands of dollars for several other providers—it is unrealistic to expect healthcare providers or service providers to adequately plan for the possibility that available funding will fall short.

Instead, the Commission should adopt the solution implemented in the High-Cost Loop Support mechanism and reduce each funding request by the same amount. Although this policy may still pose a hardship, it will improve on the current method by burdening all participants equally. A 7.5 percent reduction may pose a mild inconvenience to some providers but prove an insurmountable obstacle to others. An across-the-board, flat rate reduction, however, poses the same monetary inconvenience to everyone. For example, if every funding request is reduced by $1,000, every healthcare provider is in the same position of needing to secure $1,000. Although this method may wipe out some low-cost funding requests altogether, a funding request that was low enough to be wiped out by the universal reduction was small to begin with. Securing that relatively low amount of additional money will not pose anywhere near the hardship of securing what turned out to be, for some healthcare providers, over a million dollars. Moreover, any

[87] Alaska Waiver, *supra* note 35, at 5464 ¶ 5.

shortfall must be applied to every applicant; the Commission should not impose a shortfall on certain providers depending on the application filing date. At a minimum, any funding reduction must be transparent and provide adequate notice to all parties. Where reductions are necessary and financial burdens are inevitable, those burdens should be borne by every healthcare provider in equal amounts, rather than disproportionately by those serving extremely rural, high-cost areas like Alaska.

Importantly, there are unintended consequences from these reductions. For instance, some healthcare providers have decided to sign contracts with a one-year term instead of a three or five-year term given the funding uncertainty, which leads to higher rates due to shortened term commitments. This result is counterproductive to what the program is trying to achieve.

V. ANY FUNDING PRIORITIZATION SCHEME TO ADDRESS CAP OVERFLOW MUST BE CAREFULLY TAILORED TO MEET 254(h)(1)(A) OBLIGATIONS.

As described above, the best way to address the current issues with the RHC budget is to increase the cap following a full reevaluation. However, GCI recognizes that other measures may also be necessary in the event the cap is exceeded or adequate funding cannot be procured in a given year. Because the need to apply a prioritization scheme necessarily means that program participants will not all receive full funding, any such scheme will, by its very nature, be inconsistent with section 254(h)(1)(A). Nevertheless, if the Commission decides to implement a prioritization scheme to be employed if and when the need arises, it must select a scheme that most closely aligns with the statute, including the statute's overarching goal of making telecommunications services reasonably available to healthcare providers serving rural parts of the country for reasonably comparable rates.

A. GCI's Priority Payment and Minimum Payment Proposal Strikes a Balance Between Defraying Costs and Providing Economic Incentives.

In November 2017, GCI introduced a proposal for one such prioritization scheme that aligns closely with the goals and requirements of the statute.[88] This proposal prioritizes the payment of commitments made to healthcare providers in "Highly Rural" areas while simultaneously increasing the minimum payments required of those Highly Rural providers. By prioritizing funding while also increasing healthcare providers' contributions, the proposal balances the statute's overarching goals with the Commission's desire to incentivize responsible spending.

The first prong of this proposal establishes "Highly Rural Priority" for both Telecom Program and HCF Program participants. Under this prong, eligible healthcare providers located in Highly Rural counties would receive priority for funding, similar to Category One in the E-Rate program. These Highly Rural healthcare providers would have their commitments drawn from the RHC Program budget first, with non-Highly-Rural providers coming second.

GCI proposed that the definition of "Highly Rural" for purposes of the RHC Program's prioritization scheme be based on the definition used by the U.S. Department of Veterans' Affairs ("VA"). The VA operates Highly Rural Transportation Grants ("HRTG"), a program that helps veterans in "highly rural" areas travel to VA-authorized healthcare facilities.[89] The HRTG's definition of "highly rural" is any county or borough (or census area that is not in an

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88 *See generally* Letter from John T. Nakahata, Counsel to General Communication, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 02-60 (filed Nov. 2, 2017) ("GCI Proposal").

89 Highly Rural Transportation Grants (HRTG), U.S. Department of Veterans Affairs, available at https://www.va.gov/HEALTHBENEFITS/vtp/highly_rural_transportation_grants.asp.

organized county or borough) "having a population of less than seven persons per square mile."[90] A preliminary analysis from The Brattle Group suggests that, in FY 2016, approximately $131 million was committed to Highly Rural areas nationwide. In Alaska, this definition excludes the consolidated city-boroughs of Anchorage and Juneau and the borough of Fairbanks North Star, with the remainder of the state appropriately classified as Highly Rural. The Fairbanks North Star Borough also shows that this regime should have an exception for communities that are not connected to the urban core communities by road, as these off-road communities are more similar to other off-road Alaska communities than to Fairbanks, which is on Alaska's highway system.

Individual healthcare providers should be easy to designate as Highly Rural versus not. Consortia, however, pose a unique challenge. A consortium that consists of both Highly Rural and Non-Highly-Rural healthcare providers should *not* be considered Highly Rural for purposes of prioritization. Allowing only certain providers within a given consortium-participant to receive prioritized funding would lead to administrative burdens and problems of allocation. However, under this proposal, healthcare providers in Highly Rural areas that happen to be members of consortia can choose to apply separately for Highly Rural priority. Permitting these providers to proceed as individuals would mitigate any allocation and administrative challenges.

Prioritizing funding for "Highly Rural" healthcare providers ensures a prioritization scheme that is as closely aligned with the statute and RHC Program's goals as possible. The overarching purpose of section 254(h)(1)(A) and the RHC Program is to defray the cost of

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[90] Grants for Transportation of Veterans in Highly Rural Areas: Frequently Asked Questions, U.S. Department of Veterans Affairs, at 2 (2015), available at https://www.va.gov/healthbenefits/resources/publications/IB10-688-HRTG_faq.pdf.

telecommunications services for healthcare providers serving remote communities, thus making such services more accessible.[91] This first prong of GCI's proposal is the most effective means of ensuring this goal is met.

The second prong of this proposal brings greater fiscal discipline to the Telecom Program. GCI proposes that, starting in FY 2018, Highly Rural healthcare providers be required to pay the greater of the urban rate or 1 percent of the rural rate. The Commission has expressed concern that healthcare providers, knowing they will not be required to pay in full for the services they purchase, are not sufficiently incentivized to control their costs and make responsible purchasing decisions.[92] This prong addresses these concerns by requiring Highly Rural healthcare providers in the Telecom Program to put more "skin in the game."[93] Requiring Highly Rural healthcare providers to contribute an additional amount would introduce additional discipline to their purchasing decisions and incentivize them to procure only what they need, at the most reasonable prices available. This amount could later be incrementally increased, if necessary, to introduce further fiscal discipline, but the Commission should not do so

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91 *See* 47 U.S.C. § 254(b)(3) (expressing intent that consumers in "all regions of the Nation," including rural areas, "should have access to telecommunications and information services . . . that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas"); *In the Matter of Federal-State Joint Board on Universal Service*, Mem. Op. & Order, CC Docket No. 96-45, 13 FCC Rcd. 274, 278 ¶ 7 (1998) (expressing a desire to include as many rural healthcare providers "that because of their location[ ] are prevented from obtaining telecommunications services at rates available to urban customers" as possible); *In the Matter of Federal-State Joint Board on Universal Service*, Recommended Decision, CC Docket No. 96-45, 12 FCC Rcd. 87, 90 ¶ 2 (1996) (stating that "[r]ural health care providers should have access to telecommunications services at rates comparable to those in urban areas").

92 Notice, *supra* note 1, at 9 ¶ 13.

93 Under this proposal, HCF Program participants continue to pay 35 percent. This share does not change, regardless of whether or not they are designated Highly Rural.

prematurely because of the impacts on affordability. Moreover, by bringing greater fiscal discipline to the program—and thus controlling the amount of prioritized funding requested—this prong of the proposal ensures that prioritizing funding for Highly Rural healthcare providers will not unduly restrict the support available to those outside of Highly Rural communities.

In increasing healthcare providers' costs, however, the Commission must ensure that these costs do not become so high as to suppress healthcare providers' purchase of necessary services by rendering those services unaffordable. Such a result would certainly violate the plain text of the statute and undermine its overarching purpose. Similarly, the Commission must avoid placing healthcare providers in a position where they are forced to raise their prices such that patients can no longer afford their services. Congress' ultimate goal of providing healthcare to patients in rural areas—in this case, via telemedicine—would certainly be undermined by a proposal that places telemedicine out of reach for those patients. Instead, the Commission must carefully balance affordability to healthcare providers and affordability to payor consumers. To this end, GCI proposes the Commission increase the amount only as necessary and include a "circuit breaker" mechanism that would suspend increases to healthcare providers' minimum payments if the cap is not exceeded. The benefits of including such a mechanism are twofold. First, it would ensure that healthcare providers' costs are not unnecessarily increased and, thus, that healthcare providers are not unduly constrained in obtaining needed services. Second, it would ensure that healthcare providers have sufficient notice of the contributions they will be expected to make and can plan accordingly.

Modestly increasing healthcare providers' share of the costs will bring greater fiscal discipline to the Telecom Program. GCI's proposal is structured to promote the Commission's

expressed goal of efficient program administration while balancing this goal with Congress' statutory intent.

B. The Proposal to Create Priority Tiers Based on the Four Prongs of the Definition of Rural in 54.600(b) May Be Workable.

In paragraph 24 of the Notice, the Commission proposes establishing a hierarchy of "extremely rural," "rural," "less rural," and "urban" and prioritizing support to the most rural areas first.[94] It is GCI's understanding that, in preparing the estimates of FY 2016 support for each grouping, the Commission used the prongs of the definition of "rural area" in 47 C.F.R. § 54.600(b)(1). Under that framework, "extremely rural" would be any area outside of a Metropolitan or Micropolitan Statistical Area, as defined by the Office of Management and Budget; a "rural" area would be an area within a Metropolitan or Micropolitan Statistical Area, but in which the core Urban Area, as defined by the Census Bureau, would be under 25,000 in population; and a "less rural" area would be a census tract within a Metropolitan or Micropolitan Statistical Area with a core Urban Area of a population of 25,000 or greater, provided that the census tract did not overlap the core Place or Urban Area with a population of 25,000 or greater.[95] Urban would be the remaining areas.

While GCI is still attempting to analyze the impacts of such a regime in Alaska, it preliminarily believes that such a prioritization scheme could be workable, assuming that the priority system would provide support to fully fund "extremely rural" areas first, then "rural" areas, and then "less rural" areas until the support cap is reached. If support within the cap were not sufficient to fund an entire tier (*e.g.*, all "less rural" areas), then support would be

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94 Notice, *supra* note 1, at 12 ¶ 24.

95 47 C.F.R. § 54.600(b)(1).

apportioned. As discussed above, in such a scheme, support should be apportioned by equal dollar reductions rather than by percentages.[96] As with GCI's proposal, it would make sense to treat all communities not reachable by road from their core Urban Area as "extremely rural." Again, this would focus assistance where it is most needed.

C. Other Prioritization Proposals Do Not Meet Statutory Objectives, Especially in remote (*i.e.*, Extremely Rural) Alaska.

1. Prioritizing Based on Type of Support, Service, or Program.

In the Notice, the Commission asks whether one type of support—recurring versus one-time—has a greater impact in rural areas.[97] The answer is clear: recurring support is vastly superior. One-time support does not help healthcare providers in rural areas unless they desire to own and invest in their own telecommunications networks, which most do not. Indeed, maintaining and upgrading a network falls well outside the core business of most healthcare providers. Furthermore, RHC Program support mechanisms should not usurp the role of healthcare providers in choosing whether to buy or lease a network. Under the current rules, healthcare providers have the option to buy if doing so is more cost-effective, but they are also able to lease if that option makes more sense. Prioritizing one-time support over recurring support would force healthcare providers to buy rather than lease by guaranteeing funding appropriate only for the former. Moreover, even if healthcare providers were forced to buy, they would still need ongoing support to maintain and upgrade their networks.

Recurring support, on the other hand, allows healthcare providers to reliably purchase the communications services necessary to support their delivery of telemedicine. Data services, for example, are both crucial to the delivery of telemedicine as well as telehealth's most costly

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[96] *See supra* at III.A.

[97] Notice, *supra* note 1, at 14 ¶ 31.

element; without them, quality of patient care would be drastically reduced. Accordingly, in order to comply with the objectives underlying section 254(h)(1)(A), the support mechanism must ensure these services are funded.

The Commission also asks whether, in the event the cap is exceeded, either the Telecom Program or HCF Program should receive priority over the other.[98] GCI believes that both programs should be subject to equal treatment.

2. Prioritizing Based on Economic Need or Healthcare Professional Shortages.

Finally, the Commission asks whether the RHC Program should consider, when prioritizing disbursements, either the economic need of the population served by a given healthcare provider or any healthcare professional shortages.[99] Neither factor merits consideration.

First, the Commission should not consider the economic need of the population served by the healthcare provider. When patients are located in remote areas accessible only by air, financial resources can only take them so far; even if a patient can pay for a medivac to Anchorage, an airlift will always be slower than a broadband connection. All residents of rural areas, regardless of income, are equally deserving of medical treatment. When the availability of quality healthcare turns on the availability of a telehealth communications network—as it does in rural Alaska—economic need is not an appropriate basis for disbursement prioritization.

Second, the Commission should not consider whether a given geographic area has a shortage of healthcare professionals. Identification of these areas is a difficult undertaking

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98 *Id.* at 14 ¶ 32.

99 *Id.* at 14-15 ¶¶ 33-34.

subject to false positives, and results would not be sufficiently reliable to justify prioritizing funding on this basis.

VI. EXISTING RURAL RATES IN ALASKA ARE BOTH JUSTIFIED AND MARKET-DISCIPLINED.

A. The Existing Market is Competitive.

As discussed in Section IV.B.1, above, the market is the best determinant for rates in the RHC Program context. The Alaska market is competitive, and it will become more competitive as both fiber and satellite options continue to evolve and expand.

When it comes to the provision of communications services to rural healthcare providers, the market in Alaska is competitive. GCI is an active competitor for this business. Between 2013 and 2017, it bid on 84 RFPs submitted by rural healthcare providers in accordance with the RHC Program's competitive bidding procedures. Of these 84 bids submitted, GCI won 41 and lost 43. Of its 43 losses, 39 were to Alaska Communications Systems ("ACS"), 1 was to DRS Technologies ("DRS"), and 3 were to unknown competitors. These losses occurred in areas with varying levels of accessibility, from areas relatively accessible by road, such as Seldovia and Chitina (approximately 250 miles from Anchorage), to areas accessible only by air or ferry, such as Kodiak Island (approximately 400 miles), Tatitlek (approximately 110 miles), and Unalaska (in the Aleutian Islands, approximately 1,200 miles). A win rate of under 49 percent in the RHC Program clearly demonstrates the existence of a competitive market.

Quintillion's entry into the market demonstrates that the communications market in rural Alaska is both conducive to competitive entry and offers competitive market conditions. Actual market entry by a competitor like Quintillion will either further discipline current market pricing (if the new entrant offers prices that are significantly lower) or reaffirm that existing market pricing is reasonable (if the new entrant offers services at or near the same rate as existing

competitors). In addition, various non-geostationary satellite constellations have been proposed that would include low latency, high capacity service to Alaska, including the far northern areas that are much more difficult to reach from geostationary satellites. Accordingly, the fact that the market is competitive should assuage any concern on the part of the Commission that GCI's rate are artificially high. If GCI's rates are, in fact, too high, they will inevitably be driven down by the entry of a competitor with lower rates. If GCI's rates are not ultimately driven down, it will have been because they are already reasonable, given the high cost and risk inherent in building out a network in Alaska.

B. GCI Has Continually Reduced its Per Mbps Rates to Rural Healthcare Providers.

When setting rates, GCI and other carriers serving rural Alaska must account not only for the high costs of building networks and providing services in rural Alaska, but also for the relatively low return on their investments (given the sparse population) and the massive risks they shoulder in building out their networks.

Despite these challenges, GCI has reduced its per Mbps rates for high-volume services over time, particularly those services provisioned over its TERRA network. Between 2014 and 2015, its per Mbps rate on the TERRA network dropped by about 4 percent; between 2015 and 2016, its per Mbps rate dropped by about 10 percent; and between 2016 and 2017, its per Mbps rate dropped by about 19 percent. Overall, between 2012 and 2017, GCI's per Mbps TERRA rate dropped by over 31 percent.

At the same time, the average amount of bandwidth purchased by eligible healthcare providers increased. Between 2014 and 2015, the average bandwidth purchase on the TERRA network grew by almost 30 percent; between 2015 and 2016, the average purchase grew by almost 38 percent; and between 2016 and 2017, the average purchase grew by around 20 percent.

Overall, between 2012 and 2017, the average amount of bandwidth purchased by rural healthcare providers grew by over 250 percent.

GCI's experience is illustrative of the increased demand for RHC Program funding in recent years: the demand for bandwidth is increasing at an even faster rate than carrier's per Mbps rates are dropping. In 2017, healthcare providers purchased, on average, 20 percent more bandwidth than they did in 2016. However, the average total amount paid for services was 2.5 percent *lower* in 2017 than it was in 2016, despite the increased bandwidth demand. This shows that the driving force behind healthcare providers' increased requests for funding is an increase in bandwidth demand.

VII. CONCLUSION.

In recent years, advances in broadband and telemedicine technology have caused rural healthcare providers' demand for telehealth services to rise. This rise in demand for telehealth services has in turn led to a rise in demand for RHC Program funding. At this juncture, with demand for funding exceeding the RHC Program budget, the Commission should undertake a full reevaluation of the budget cap and make modest adjustments to the program to ensure that statutory obligations are met. The best way to accomplish the RHC Program's goals is to prioritize funding requests based on level of rurality and avoid targeting high-demand funding requests. In addition, rural rates should be determined by the market, not artificially set based on cost studies. Inappropriately lowering rural rates will discourage infrastructure investment, putting telecommunications infrastructure in extremely rural areas at risk.

Respectfully submitted,

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